

Job Market Paper

The effect of price information on consumer behavior under nonlinear tariffs: Evidence from a water utility merger

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Abstract

Consumers often face complex pricing schemes when making purchasing decisions. Inefficiencies arise when such schemes are not fully understood. Electric and water utilities use increasing block tariffs (IBT's) to promote conservation. However, recent evidence suggests that consumers may not respond to the marginal price under these price systems. This paper investigates price salience as a possible mechanism by leveraging quasi-exogenous variation in the level of price-related information provided to households on their monthly water bills. I exploit a merger between two water utilities that use IBTs in the same metropolitan area. Before the merger, one group of households received information on the price schedule, while the other did not; after the merger, both groups received price information. Using a difference-in-difference approach, I find that providing consumers with price information leads to a 4% decrease in average water consumption, suggesting that salience is important. I develop a model of consumer decision-making under price uncertainty that predicts consumers will have a differential response to information based on where their consumption is relative to the block tariff threshold. When estimating the effect of information by historical consumption level, I find empirical evidence consistent with these predictions.

Keywords: difference-in-differences, information provision, natural experiment, price uncertainty, water conservation, water demand

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